Demonstrating Shift of Oncology Treatment From The Office Setting to Hospital Outpatient Department

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Questions To Be Answered

- Concerns have been raised that the shift in oncology treatment volume from the office to the hospital outpatient department setting could be exacerbated by policies – such as the Part B drug demonstration.
- Because it is impossible to establish how much additional shifting will be caused by these policies, the cost to Medicare that result from them is unknown.
- However, it is possible to demonstrate the potential impact of this change by taking the volume of chemotherapy administration and drug codes and re-pricing them (or a portion of them) by the other setting's rate.

Overall Results

- In our analysis of these issues for this and other projects, we found that moving volume from the office to the outpatient setting could increase costs by two different ways:
  - Pure pricing effects – The rates in the outpatient reimbursement tend to be higher than the those in the physician fee schedule.
    - A 10% shift in volume from the office to the HOPD would cause a 0.4% increase in costs.
  - Differential system behavior – Patients in the outpatient setting receive the same services more frequently and at a higher cost.
    - The same 10% volume shift would, accounting for this change, cause a 2.8% increase in costs.
    - Using claims data, we are unable to know how much of this difference is due to case mix (that is patients in the HOPD are sicker) or if the physicians in the HOPD prescribe treatment in a different manner.

Results: Total System Volume Swap

Table 1 - Repricing the Office Setting Volume*

Type of Chemotherapy HCPCS	Utilizing Rates from PFS	Utilizing Rates from OPPS	Percent Change
Total	***$ 2,232,553,010***	***$ 2,407,485,406***	***8%***
Administration Procedures	$ 199,447,444	$ 374,379,840	88%
Drug Codes	$ 2,033,105,566	$ 2,033,105,566	0%

**Totals are estimates from the 5% Carrier Standard Analytic File that have been trended to the national level.*

Table 2 - Repricing the Outpatient Volume

Type of Chemotherapy HCPCS	Utilizing Rates from OPPS	Utilizing Rates from PFS	Percent Change
Total	***$ 2,308,409,784***	***$ 2,029,614,916***	***-12%***
Administration Procedures	$ 591,968,132	$ 313,173,263	-47%
Drug Codes	$ 1,716,441,653	$ 1,716,441,653	0%

Results: Deeper Examination of Chemotherapy Administration Code Reimbursement in the OPPS

Table 3 - Chemotherapy Administration Codes Geometric Mean Cost, Reimbursment Rates

HCPCS	HCPCS Descriptor	2016 OPPS Geometric Mean Cost Without Packaging	2016 OPPS Geometric Mean Cost of With Packaging	2016 OPPS Reimbursement Rate	2016 PFS Reimbursement Rate
96401	Chemo anti-neopl sq/im	$ 63	$ 88	$ 92	$ 75
96402	Chemo hormon antineopl sq/im	$ 63	$ 77	$ 42	$ 33
96405	Chemo intralesional up to 7	$ 47	$ 76	$ 42	$ 83
96406	Chemo intralesional over 7	$ 106	$ 231	$ 173	$ 118
96409	Chemo iv push sngl drug	$ 102	$ 191	$ 173	$ 112
96411	Chemo iv push addl drug	$ 87	$ 87	$ 92	$ 63
96413	Chemo iv infusion 1 hr	$ 143	$ 289	$ 280	$ 137
96415	Chemo iv infusion addl hr	$ 72	$ 72	$ 42	$ 29
96416	Chemo prolong infuse w/pump	$ 156	$ 260	$ 280	$ 142
96417	Chemo iv infus each addl seq	$ 74	$ 74	$ 42	$ 63
96420	Chemo ia push tecnique	$ 61	$ 294	$ 280	$ 105
96422	Chemo ia infusion up to 1 hr	$ 152	$ 238	$ 280	$ 171
96423	Chemo ia infuse each addl hr	$ 47	$ 47	$ 42	$ 79
96425	Chemotherapy infusion method	$ 154	$ 267	$ 280	$ 183
96440	Chemotherapy intracavitary	$ 110	$ 357	$ 280	$ 865
96446	Chemotx admn prtl cavity	$ 150	$ 312	$ 280	$ 203
96450	Chemotherapy into cns	$ 168	$ 379	$ 280	$ 184
96542	Chemotherapy injection	$ 92	$ 178	$ 173	$ 122

Results: Examination of Packaging of Chemotherapy Administration Codes in OPPS

Table 4 – HCPS Codes Mostly Commonly Packaged with Chemotherapy Administration Codes

HCPCS	Descriptor	% of Drug Admin Singles with Packaged Service	Geometric Mean Cost
85025	Complete cbc w/auto diff wbc	25%	$ 16
J1100	Dexamethasone sodium phos	20%	$ 5
80053	Comprehen metabolic panel	19%	$ 34
J7050	Normal saline solution infus	14%	$ 12
36415	Routine venipuncture	13%	$ 6
J1200	Diphenhydramine hcl injectio	11%	$ 3
J2405	Ondansetron hcl injection	11%	$ 10
J1642	Inj heparin sodium per 10 u	10%	$ 5
None	Charges billed to revenue centers	8%	$ 12
J7040	Normal saline solution infus	7%	$ 12
J9265	Paclitaxel injection	6%	$ 87
J9045	Carboplatin injection	6%	$ 81
J9201	Gemcitabine hcl injection	6%	$ 260
83735	Assay of magnesium	5%	$ 13
36591	Draw blood off venous device	5%	$ 47

Discussion: Total System Swap

- The volume of chemotherapy administration codes from the office setting placed into the hospital outpatient department setting (HOPD) would be 88% more expensive.
  - The rate for codes in the OPPS system tend to be higher.
  - While the geometric mean cost for the chemotherapy administration codes within the OPPS system are similar to the rates in the PFS, the codes are packaged with other HCPCS coded (including packaged drugs) within the OPPS system (see Table 4).
- Separately paid drugs are reimbursed under the same rates (ASP+6%) in both systems.
- This analysis does not take into effect different behaviors in patients or the treatment of patients within each system.

Discussion: Addressing Differential System Behavior

- In the HOPD setting, patients are receiving the same chemotherapy treatment at a higher cost and with more frequency than compared to patients in the office.
- Based on the data available, it cannot be determined the extent to which the differences in utilization reflect differences in patient case mix versus differences in facility practice style.
- By determining the cost (or volume) of a code per patient, we can then import a multiplier with the change of volume from one system to the other.

Results: Current Reimbursement Under Both Systems

Table 5 - Baseline Expenditure

Setting	Administration Codes	Drug Codes	Total Cost
Systems Total	***$791,415,576***	***$3,749,547,220***	***$4,540,962,795***
HOPD Setting	$591,968,132	$1,716,441,653	$2,308,409,784
Office Setting*	$199,447,444	$2,033,105,567	$2,232,553,011

**Totals are estimates from the 5% Carrier Standard Analytic File that have been trended to the national level.*

Results: Change in Medicare With Proportional Shift of Volume from Office to the Outpatient Setting

Table 6 - Behavioral Payment Differential

Percent Shift of Volume from Office to HOPD	Percent Change* In Total Cost Across Both Systems Without Payment Differential	Percent Change* In Total Cost Across Both Systems With Payment Differential
5%	0.2%	1.4%
10%	0.4%	2.8%
15%	0.6%	4.2%
20%	0.8%	5.6%

** Original cost across both systems = $4,540,962,795*

Discussion: Proportional Shift of Volume from Office to the Outpatient Setting

- The nominal shift of 10% of cancer treatment in the office setting to the HOPD setting increases Medicare spending by only 0.4%.
- However, taking into account the utilization differences in the HOPD, this same 10% shift from the office to the outpatient setting could be projected to increase overall cost by 2.8%.
- This represents a potential upper bound, since it assumes that all of the differences between the two settings are behavioral.

Methodology

- Chemotherapy Administration
  - Chemotherapy HCPCS codes (n=18) were extracted from the most recently available Outpatient and Carrier Standard Analytical Files (2014).
  - The selected claims were then assessed for the presence of Remicade®. All chemotherapy codes on the same day within the claim as Remicade® were removed from the analysis.
  - The totals for the 5% Carrier data were projected to national estimates.
  - The volume from each system was then multiplied by the payment rate of both the Outpatient Prospective Payment System and the Physician Fee Schedule.

- Chemotherapy Medication
  - Chemotherapy medication codes (n=56) were extracted from the Outpatient and Carrier Standard Analytical Files (2014).
  - Each system's volume was then multiplied by ASP+6%.